

FUNCTIONAL REQUIREMENTS DESCRIPTION (FRD)

**1 Nov 95 SAF/AQCI
Version 1.1**

1. Introduction

This Functional Requirements Description is a narrative description of the Air Force Electronic Commerce/Electronic Data Interchange (EC/EDI) application capabilities and interfaces needed to support operational contracting processes as they exist today. It is stipulated that the Menu Assisted Data Entry System II (MADES II) EC/EDI module provides EDI capability. This MADES II EC/EDI module is referred to as "the application" for the purpose of this document. This application interfaces with the operational contracting automated system that currently is the Base Contracting Automated System (BCAS) software, database, and hardware.

This document will be updated throughout the life cycle of the AF EC/EDI in Contracting program and Federal Acquisition Computer Network (FACNET) implementation to reflect statutory and regulatory changes or functional process improvements. This document is independent of the application design. This document reflects the application and the operational contracting automated system hardware and software capabilities and interfaces necessary to support operational contracting processes.

2. Purpose

This Functional Requirements Description, as part of the overall Functional Requirements Document (25 November 94), provides:

- a. The acquirer, (i.e., the current program office) with the basis for any design changes to the application and operational contracting automated system hardware, software, and database.
- b. The acquirer with the basis for test and evaluation of the application and required interfaces between the application and operational contracting automated system.
- c. The acquirer with the basis for performance evaluation of all EC/EDI automated processes.

d. The Air Force buyer the capability to fulfill procurement requirements for commodities and services in amounts up to the FACNET certification and corresponding Simplified Acquisition Threshold.

e. The Air Force system administrator with the capability to maintain the integrity of the application and its interfaces.

f. The Air Force user (i.e., buyer, contracting officer (CO), or supervisor) with the capability to review and fulfill procurement requirements and access procurement management information and workload.

3. Assumptions

a. This Functional Requirements Description takes precedence over the overall Functional Requirements Document for decisions on application and/or operational contracting automated system design changes to fulfill the automated capabilities that follow.

b. This document assumes that EC/EDI module of MADES II (the application) currently meets the minimum requirement for creating and issuing an electronic solicitation; accepting, processing, and evaluating consequent trading partner offers to determine the apparent low offeror; and creating and issuing an electronic award document. It also assumes that efficient mobility of function will be provided in all enhancements or improvements to maximize the AF users ease of use of the EC/EDI module.

c. This document assumes the application acknowledges receipt of all applicable electronic transactions with an ANSI X12 997 Functional Acknowledgment.

d. This document assumes the application and operational contracting automated system interface shall allow the automatic achievement (and calculation) of cycle times; the bi-directional cycle time, for all transactions from issuance to receipt, between the VAN(s) and the AF users, threshold is 4 hours, with a goal of 1 hour.

e. This document assumes the application is designed IAW FIPS security requirements to ensure adequate protection of the procurement data.

4. Functional Requirements

4.1 General Requirements

a. The assumption that the MADES II EC/EDI module (the application) is capable of issuing electronic solicitations, receiving electronic offers, and issuing electronic award documents shall be broadened to include post-award processing and all Federal Acquisition Computer Network (FACNET) requirements. These requirements shall include, but are not limited to the *FACNET capabilities described in the Federal*

Register Vol 60, No 127, 3 Jul 95, Interim Rule for implementing simplified acquisition and FACNET (FAR Case 94-770) Federal Acquisition Regulation (FAR) para 4.504, and as incorporated into the FAR by final rule. PRIORITY 2

b. The application shall allow the use of group clause listings to be used in preparation of all applicable EDI transactions. The application shall permit the buyer to add MAJCOM and local site information (e.g., delivery location, delivery hours, etc.) and other SAF/AQCO approved clauses appropriate to EDI transactions. PRIORITY 1

c. The application shall permit all authorized users to review all EDI transactions. PRIORITY 1

d. The application shall have on-line application manuals and context-sensitive help for all users. PRIORITY 1

e. The application shall provide users with the ability to create, correct, amend, and cancel appropriate ANSI X12 transaction sets. PRIORITY 1

f. The application shall allow the user to attach notes to electronic files at any time and shall automatically link these notes to appropriate files and show the date the note was attached. PRIORITY 1

4.1.1. Interface with the operational contracting automated system (currently the Base Contracting Automated System [BCAS]).

a. During all processes associated with the pre-solicitation, solicitation, award, and post award administration phases, the updating of the operational contracting automated system database, while the EC/EDI module of MADES II (the application) is being used, will be accomplished with no additional buyer or system administrator inputs or reformatting of information. PRIORITY 1

b. The operational contracting automated system database shall record the method (i.e., EDI or non-EDI) by which each contracting process occurs (e.g., solicitation, award, modification). PRIORITY 3

- c. The application shall provide annotation capability for the reason a switch in method occurred between that used for soliciting and that used for award. **PRIORITY 3**

4.1.2. ANSI X12 Processing

- a. The application shall ensure that all mandatory fields of the ANSI X12 implementation convention are included in all transactions prior to release and acceptance at the application. The application shall not permit the release of an erroneous transaction and shall indicate the missing information. ***The application shall identify the error to the buyer at the time the error occurs.*** The application shall automatically reject an erroneous transaction and send an ANSI X12 824 Application Advice to the trading partner for erroneous transactions. **PRIORITY 1**
- b. The application shall provide Federal Information Processing Standards (FIPS) compliance for security of the ANSI X12 transaction sets. **PRIORITY 1**
- c. The application shall allow all ANSI X12 transaction sets to be date and time stamped at the government Network Entry Point (NEP). **PRIORITY 3**
- d. The application shall provide the bi-directional ability to send and receive an ANSI X12 864 Text Message that is automatically linked to the associated transaction. **PRIORITY 1**

4.1.3. Security

- a. The application shall ensure that all actions are attributed to the person actually performing the work. **PRIORITY 1**
- b. The application shall ensure that originally assigned and reassigned actions are accessible only by authorized personnel. **PRIORITY 1**
- c. The application shall provide the ability to change authorized user without going back into the operational contracting automated system. **PRIORITY 1**

4.2. Specific Requirements

4.2.1 Presolicitation Processing

a. The application and operational contracting automated system interface shall allow the previous purchase history and potential sources of supply to be available to the buyer without exiting the application. **PRIORITY 2**

b. The application and operational contracting automated system interface shall allow the buyer to combine multiple solicitation numbers into a multiple line item solicitation. **PRIORITY 1**

4.2.2 Solicitation Processing

a. The application shall allow the default source for any solicitation within the Simplified Acquisition Threshold in accordance with corresponding FACNET certification to be ***configurable to be*** Public. **PRIORITY 1**

b. The application shall allow the buyer to direct any solicitation to any single trading partner, multiple individual trading partners, or pre-defined group of trading partners. **PRIORITY 1**

c. The application shall notify the buyer if a directed transaction has not been acknowledged by receipt of ANSI X12 997 from the trading partner(s) within 24 hours. **PRIORITY 1**

d. The application shall allow the solicitation close date to be configurable to allow the system administrator to set a default by requirement priority and to allow the buyer to change the close date. **PRIORITY 2**

e. The application shall automatically validate (with the ability to override) the request for quote close date and time, and annotate the request for quotation based on federal work days, weekends, and holidays. **PRIORITY 2**

f. The application shall use the Department of Defense Account Activity Code (DODAAC) as the AF contracting site identifier in all ANSI X12 transaction sets. **PRIORITY 1**

g. The application and operational contracting automated system interface shall allow the buyer to issue multiple line item solicitations. **PRIORITY 1**

- h. The application shall automatically input the Standard Industrial Classification (SIC) code. **PRIORITY 3**
- i. The application and operational contracting automated system interface shall allow the buyer to exclude line items from a particular multiple line item solicitation, and then allow the buyer to separately process the excluded line items. **PRIORITY 1**
- j. The application and operational contracting automated system interface shall allow the *authorized user* to change purchase request quantities. **PRIORITY 1**
- k. The application and operational contracting automated system interface shall allow the buyer to view clauses, recurring statements (generally referred to as "BCAS statements"), and packaging instructions in solicitations. **PRIORITY 1**

4.2.3 Award Processing

- a. The application shall identify all quotes received after *the buyer selects the apparent low quote to the contracting officer only when the quote displaces the apparent low quote*. **PRIORITY 3**
- b. For the apparent low quote, after the closing date and time, the application shall automatically verify the currency of the local trading partner database against the central contractor registration database and update the local trading partner database as necessary. The threshold for updating is 5 minutes, with a goal of 2 minutes. **PRIORITY 1**
- c. The application shall have a query function to the central contractor registration database with a download capability without exiting the application. **PRIORITY 3**
- d. The application and operational contracting automated system interface shall allow a buyer to make split awards and the buyer shall be made aware of a split award in all post-award processing of that award. **PRIORITY 1**
- e. The application shall allow the buyer to automatically send split awards to all awardees with a single action. **PRIORITY 1**
- f. The application shall automatically add the business size status and debarred/suspended status to the application's existing abstract of quotes display. **PRIORITY 2**

g. The application *and operational contracting automated system interface* shall process all contracting actions permitted within the existing FACNET certification and corresponding Simplified Acquisition Threshold. In particular, the application shall support the issuance of purchase orders and delivery orders for commodities, and services requiring no more text transmission than permitted by the ANSI X12 840 and 864 transaction sets. **PRIORITY 1**

h. Prior to *an authorized user completing* an award, the application shall allow the user to exit the award, process and recover all quotes, and restart the award process. **PRIORITY 1**

i. If no offers are received by solicitation closing date and time, the application shall notify the buyer that no quotes were received. **PRIORITY 3**

j. The application shall allow the buyer to perform all award actions and the CO shall only need to review the award prior to release. Buyers who are warranted CO's shall retain the ability to award and release awards in one process. **PRIORITY 1**

k. The application and operational contracting automated system interface shall allow the buyer to prepare multiple line item award transactions. **PRIORITY 1**

l. The application and operational contracting automated system interface shall allow the buyer to combine multiple solicitations into a single award transaction. **PRIORITY 1**

m. The application shall notify the CO that award is about to be made to other than the low quoter. **PRIORITY 2**

n. The application shall allow award transactions to be issued citing multiple paying offices. **PRIORITY 3**

o. The application shall not allow an award to be released to a debarred/suspended trading partner without specific and manual approval by the assigned CO. **PRIORITY 3**

p. The application and operational contracting automated system interface shall allow the buyer to view the award document without exiting the application. **PRIORITY 2**

q. The application and operational contracting automated system interface shall allow the buyer to view the award document number at the time of award without exiting the application. **PRIORITY 1**

4.2.4 Post Award Processing

- a. The application shall allow the user to send and receive all post award documentation in the appropriate ANSI X12 transaction sets (at a minimum, modifications, order status inquiries, order status reporting, text messaging).
PRIORITY 1
- b. The application shall accept and present to the user all automated post award administrative actions as processed through the operational contracting automated system. PRIORITY 1
- c. The application shall allow for automatic assignment of post award work.
PRIORITY 1
- d. The application shall provide for processing post award contract actions using the same criteria as defined in Section 4.2.2. PRIORITY 1

4.2.5 Workload Management

The following requirements shall apply to all processes in the application.

- a. The application shall allow the user the ability to suspend/clear purchase requests.
PRIORITY 1
- b. The application shall allow the user to view and track workload in the following categories: OPEN (not solicited), SOLICITED (solicited, quotes pending), CLOSED (quotes received, not awarded), SUSPENDED (buyer has suspended the purchase request), and AWARDED (awarded and canceled items). PRIORITY 1
- c. The application shall provide a summary of all workload in each category defined in Section 4.2.5 para 2. above. PRIORITY 1
- d. The application shall allow the user to abstract and review all quotes received for each SOLICITED, CLOSED, SUSPENDED and AWARDED solicitation.
PRIORITY 1
- e. The application shall allow for the creation of documents for printing, and the consequent printing of such documents without user intervention or process interruption. PRIORITY 1
- f. The application shall provide authorized operational contracting individuals with the ability to reassign workload between contracting personnel. PRIORITY 1

g. The application shall allow authorized operational contracting individuals the ability to sort existing workload. As a minimum, workload may be sorted by Procurement Instrument Identification Number (PIIN), *age of solicitation in days*, solicitation date, requirement priority, required delivery date, estimated delivery date, or trading partner ID (currently the Contractor and Government Entity [CAGE] code) in each category. PRIORITY 1

4.2.6 Auditing

The application shall provide read only, electronic auditing capability.

- a. The application shall automatically maintain, *link, and read* all EDI transactions and related electronic documentation with the solicitation/award in accordance with AF policy, for records currently maintained in the operational contracting automated system database. PRIORITY 1
- b. The application shall provide on-line retrieval of all active records with a 10 second threshold and a 1 second goal. PRIORITY 3
- c. The application shall automatically archive the linked EDI transactions and related electronic documentation in accordance with AF policy. PRIORITY 1
- d. The application shall provide retrieval of archived records with a 30 minute threshold and a 10 minute goal. PRIORITY 3

4.2.7 Metrics Collection

The application shall provide for the automatic collection of EDI performance metrics.

- a. The application shall have the ability to automatically collect EDI metrics and provide for ad-hoc reporting capabilities. Ad-hoc reporting shall have, as a minimum, the following sort capabilities: Federal Stock Class, Federal Stock Group, Trading Partner, Size Standard, State, City, or Value Added Network. PRIORITY 3
- b. Standard EDI metrics shall be collected, compiled, and reported in accordance with the reporting cycle for the operational contracting automated system or for a user specified period of time. PRIORITY 3
- c. The following standard EDI metrics shall be collected: PRIORITY 3
 - i. *Number of line items automatically received by BCAS.*
 - ii. Number of line items solicited.

- iii. Number of EDI line items solicited.
- iv. Number of EDI Public solicitations issued.
- v. Number of EDI quotes received for each Public solicitation.
- vi. Number of EDI directed solicitations issued.
- vii. Number of EDI quotes received for each directed solicitation.
- viii. Number of line items awarded *for BCAS contract actions B, C, E, & M.*
- ix. Number of EDI line items awarded for BCAS contract actions *B, C, E, & M.*
- x. *Automatically compute the metric for number of EDI line items awarded divided by the number of line items awarded for BCAS contract actions B, C, E, & M.*
- xi. Number of line items awarded through the operational contracting automated system, but solicited through EDI and rationale for not completing award through EDI (e.g., no bids, etc.).
- xii. Number of EDI line items awarded not solicited through EDI.
- xiii. Total and average dollars awarded.
- xiv. Total and average dollars awarded through EDI.
- xv. Total number of active electronic trading partners per site during the reporting period. Active includes all trading partners that received an award during the reporting period.

5. System Administrator Capabilities

- a. The application shall allow the system administrator to be automatically and immediately notified of all application, operational contracting automated system interface, and communication network failures. PRIORITY 1

- b. The application will provide the system administrator with the capability to automatically back-up and/or purge EDI data files based on local or regulatory guidance. **PRIORITY 1**
- c. The application shall allow the system administrator to set configurable parameters and defaults for printing paper contracting documentation to support all electronic transactions in either the ANSI X12 format or the government prescribed form.
PRIORITY 2
- d. The application shall have on-line software trouble reporting capability configurable to the MAJCOM or Field Assistance Branch (FAB). **PRIORITY 3**
- e. The application shall allow the system administrator to add non-duty days to the annual calendar. The application shall allow the administrator to identify **50** non-duty days. **PRIORITY 3**
- f. The application shall allow the system administrator to configure the ability to automatically print orders. **PRIORITY 1**
- g. The application shall allow the administrator to recover all databases (both the application and operational contracting automated system) in the event of a system crash. ***The application recovery must be compatible with the operational contracting automated system recovery.*** **PRIORITY 1**